

Abstract

Electric power source comprising a fuel cell without discharge of matter to the outside and control process of such a power source.

The electric power source comprises a fuel cell (1) and at least one flow channel (5a) the inlet and outlet whereof are respectively connected to a reactive fluid source and to a tank (10) designed to contain the reactive fluid feeding the fuel cell and the water produced by the fuel cell. An inlet valve (11) is arranged between the reactive fluid source and the inlet of the flow channel (5a) and is controlled by a control device (12). Once the tank (10) has been filled with reactive fluid, the inlet valve (11) is closed for a predetermined first time period (T1). It is then opened for a predetermined second time period (T2) so as to evacuate the water accumulated in the fuel cell (1) during the first time period (T1) to the tank (10), and to refill the tank (10) with reactive fluid.

(Figure 4)